Louisville Metro Air Pollution Control District

850 Barret Ave., Louisville, Kentucky 40204
30 August 2014

Title V Statement of Basis

Company: Louisville Gas & Electric Company, Cane Run Generating Station

Plant Location: 5252 Cane Run Road, Louisville, Kentucky 40232

Date Application Received: 20 April 2007 **Date Admin Complete:** 30 June 2008

Date of Draft Permit: 30 August 2014 **Date of Proposed Permit:** 30 August 2014

District Engineer: Yiqiu Lin **Permit No:** 175-00-TV (R2)

Plant ID: 0126 **SIC Code:** 4911 **NAICS**: 221112 **AFS:** 00126

Introduction:

This permit will be issued pursuant to: (1) Regulation 2.16, (2) Title 40 of the Code of Federal Regulations Part 70, and (3) Title V of the Clean Air Act Amendments of 1990. Its purpose is to identify and consolidate existing District and Federal air requirements and to provide methods of determining continued compliance with these requirements.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO_2), carbon monoxide (CO), 1 hr and 8 hr ozone (O_3), and particulate matter less than 10 microns (PM_{10}); and is a non-attainment area for particulate matter less than 2.5 microns ($PM_{2.5}$) and partial non-attainment area for sulfur dioxide (SO_2).

Application Type/Permit Activity:

[ ] Initial Issuance

[ ] Permit Revision
- [ ] Administrative
- [ ] Minor
- [ ] Significant

[X] Permit Renewal

Compliance Summary:

[X] Compliance certification signed
[ ] Source is out of compliance
[ ] Compliance schedule included
[X] Source is operating in compliance

I. Source Information

1. Product Description: Louisville Gas & Electric Cane Run Generating Station generates electric energy for local and remote distribution.

2. Process Description: This plant uses coal (before November, 2015) and natural gas (after November, 2015) fire commercial boilers for generation of electricity via steam turbines and generators.

3. Site Determination: There are no other facilities that are contiguous or adjacent and under common control.

4. Emission Unit Summary:

Emission Unit	**Equipment Description** (before NGCC project)
U4	Electric utility steam generating unit (EGU) – Unit 4
U5	Electric utility steam generating unit (EGU) – Unit 5
U6	Electric utility steam generating unit (EGU) – Unit 6
U7	Sludge processing plant
U8	Unit 6 SDRS soda ash storage silo
U10	Coal handling facilities
U11	Gas turbine GT11
U14	Porta batch units
U19	Haul road
U20	Landfill

Emission Unit	**Equipment Description** (after NGCC project)
U11	Gas turbine GT11
U15	Natural gas-fired combined cycle (NGCC) unit
U16	Natural gas-fired auxiliary boiler
U18	Emergency generator
U19	Haul road

Note: The source is required to shut down the existing emission unit U4, U5, U6, U7, U8, U10, IA1 (previous U9), two parts washers of IA2 (previous U12), and U14 prior to November 1, 2015 when the new emission unit U15, U16, and U18 complete shakedown and become operational.

5. **Fugitive Sources:** There are fugitive emissions from haul roads, landfill area, and material stack piles at this source.

6. **Permit Revisions**:

Revision No.	Issue Date	Public Notice Date	Type	Attachment No./Page No.	Description
Initial	10/1/2002	12/17/2000	Initial	Entire Permit	Initial Permit Issuance
R1	10/1/2002	12/17/2000	Administrative	Preamble, Insignificant Activities, E2, E4, E6	Updated preamble and insignificant activities. Removed Method 22 from emission points E2, E4, and E6
R2	xx/xx/2014	08/30/2014	Renewal and Revision	Entire Permit	Permit renewal; R.O. change and addition; Acid Rain permit revision; Incorporate construction permit 244-02, 608-07, 609-07, 643-07, 119-07, 30501-11, 31791-11, 34410-12

7. **Emission Summary**:

Pollutant	District Calculated Actual Emissions (tpy) 2012 Data	Major Source Pollutants (based on PTE before NGCC)	Major Source Pollutants (based on PTE after NGCC)
CO	335.1	Yes	Yes
NO_x	4738.3	Yes	Yes
SO_2	6127.2	Yes	No
PM_{10}	404.9	Yes	Yes
VOC	40.7	No	No
Total HAPs	29.6	Yes	No
Single HAP > 1 tpy			
Hydrochloric Acid	16.9	Yes	No
Hydrogen Fluoride	8.05	Yes	No
Cyanide Compounds	1.64	No	No

Pollutant	District Calculated Actual Emissions (tpy) 2012 Data	Major Source Pollutants (based on PTE before NGCC)	Major Source Pollutants (based on PTE after NGCC)
Greenhouse Gas	5,439,660* CO_2e	Yes	Yes

* This is the plant-wide PTE for greenhouse gases.

8. Applicable Requirements:

[ ] PSD	[X] 40 CFR 60	[X] SIP	[X] 40 CFR 63
[ ] NSR	[ ] 40 CFR 61	[X] District-Origin	[ ] Other

9. Future MACT Requirements: The source has no future MACT requirements.

10. Referenced Federal Regulations in Permit:

40 CFR 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
40 CFR 60 Subpart Y	Standards of Performance for Coal Preparation Plants
40 CFR 60 Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
40 CFR 60 Subpart KKKK	Standards of Performance for Stationary Combustion Turbines
40 CFR 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 CFR 64	Compliance Assurance Monitoring for Major Stationary Sources
40 CFR 72	Permits Regulation
40 CFR 73	Sulfur Dioxide Allowance System
40 CFR 75	Continuous Emission Monitoring
40 CFR 76	Acid Rain Nitrogen Oxides Emission Reduction Program
40 CFR 77	Excess Emissions
40 CFR 78	Appeals Procedures for Acid Rain Program

II. Regulatory Analysis

1. Acid Rain Requirements: The source is subject to the Acid Rain Program. The owner or operator shall comply with the acid rain requirements according to 40 CFR Parts 72, 75 and 76 for Group I boilers. Louisville Gas & Electric Company has chosen to meet the early election NO_x requirements for Group I Phase II boilers. The new NGCC unit currently does not have applicable NOx limits set by 40 CFR

76. The Acid Rain permit, which is attached to the Title V permit and this construction permit, is going to be reissued at the same time of the Title V in order to make a combined Title V and Title IV permit.

2. Stratospheric Ozone Protection Requirements: Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any source that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. This source does not use any of the listed chemicals.

3. **Prevention of Accidental Releases 112(r):** The source does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, Chemical Accident Prevention Provisions, in a quantity in excess of the corresponding specified threshold amount.

4. **40 CFR Part 64 Applicability Determination:** The coal-fired boilers are subject to 40 CFR Part 64 - Compliance Assurance Monitoring (CAM) for Major Stationary Source since SO_2 and PM emissions from each of the boilers are greater than the major source threshold and control devices are required to achieve compliance with standards. On 08/18/2014, LG&E submitted a revised CAM Plan in which SO2 and NOx CEMS are used for compliance demonstration. PM CEMS is used to demonstrate compliance or provide an indication of continuous PM control.

5. **Basis of Regulation Applicability**

a. **Plant-wide**

Before the construction of NGCC unit and associated equipment, LG&E Cane Run is a Title V major source for NO_x, CO, SO_2, PM10, Total HAP, and Single HAP. Regulation 2.16 - *Title V Operating Permits* establishes requirements for major sources. LG&E Cane Run is one of the 28 source categories which have 100 tpy major thresholds. It is a PSD major source for NO_x, CO, SO_2, and Particulate matter. LG&E Cane Run is also a GHG major source.

After the construction of NGCC unit and associated equipment, LG&E Cane Run is a Title V major source for NO_x, CO, and PM10. The source accepted 25/10 tpy HAP limits to avoid being a HAP major source. Regulation 2.16 - *Title V Operating Permits* establishes requirements for major sources. LG&E Cane Run is one of the 28 source categories which have 100 tpy major thresholds. It is a PSD major source for NO_x, CO, and Particulate matter. LG&E Cane Run is also a GHG major source.

Regulations 5.00 5.20, 5.21, and 5.23 (STAR Program) establishes requirements for environmental acceptability of toxic air contaminants

(TACs) and the requirement to comply with all applicable emission standards. LG&E Cane Run submitted their TAC Environmental Acceptability Demonstration to the District on December 28, 2006, March 25, 2008, April 9, 2010, and April 2, 2012. Compliance with the STAR EA Goals was demonstrated in the source's EA Demonstrations. SCREEN3 air dispersion modeling was performed for each emission unit that has non-de minimis TAC emissions. The carcinogen risk and non-carcinogen risk values, calculated using the District approved PTE for each unit and the SCREEN model results from the source's EA Demonstration, comply with the STAR EA goals required in Regulation 5.21.

Regulation 2.16, section 4.1.9.1 and 4.1.9.2 requires monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the District upon request.

Regulation 2.16, section 4.3.5, requires stationary sources for which a Title V is issued shall submit an annual compliance certification by April 15. In addition, as required by Regulation 2.16, section 4.1.9.3, the source shall submit compliance reports at least every six months to show compliance with the permit. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.16, section 3.5.11.

b. **Emission Unit U4 -** Electric Utility Steam Generating Unit (EGU) – Unit 4

i. **Equipment:**

Emission Point	Description	Applicable Regulation	Basis for Applicability
U4 – E1	One (1) dry bottom wall-fired boiler, make Combustion Engineering, model Type RR, nominal design rating of 1,639 MMBtu/hr, using pulverized coal as the primary fuel and natural gas as the secondary fuel. Installed 1962	5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23 6.02, 6.07, 6.42, 6.47, 40 CFR 64, 40 CFR 72-73 40 CFR 75-78	Regulations 5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23 establish the requirements for Environmental Acceptability for TACs. The source is a Group I company with Category 1TACs which potentially could exceed the de minimis values. Regulation 6.02 establishes the general provisions for the application of standards of performance for existing affected facilities which were commenced prior to September 1, 1976. Existing indirect heat exchangers which commenced prior to September 1, 1972 are

Emission Point	Description	Applicable Regulation	Basis for Applicability
			subject to Regulation 6.07. Regulation 6.42 applies to the NO_x emissions from all NO_x emitting facilities located at major NO_x source. Regulation 6.47 incorporates the Federal Acid Rain Program for existing sources by reference. 40 CFR 64 establishes compliance assurance monitoring requirements for each unit that has emissions greater than major source threshold and control devices are required to achieve compliance with standards. 40 CFR 72 through 78 contain regulations for Acid Rain Program, including permits, allowance system, CEM, excess emissions, and appeal procedures.
U4 – E2	Four (4) coal silos, make American Air Filter, model Type D, controlled by centrifugal dust collector and equipped with four (4) coal mills, make CE (Raymond), model 683 Type "RS" Bowl Mill. (1962)	5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23, 6.09	Regulations 5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23 establish the requirements for Environmental Acceptability for TACs. The source is a Group I company with Category 1TACs which potentially could exceed the de minimis values. Regulation 6.09 establishes the requirements for PM emission from existing processes that commences construction prior to September 1, 1976.

ii. **Standards/Operating Limits**

1) **NO_x**

(a) Acid Rain Permit 144-97-AR (R2) is attached and considered part of the Title V Operating Permit. Regulation 6.47, section 3.5 references 40 CFR Part 76. The Acid Rain Permit establishes the alternative contemporaneous emissions limitations on an annual average basis for this unit.

(b) The NO_x RACT Plan establishes NO_x emission standards on a rolling 30-day average basis for this unit.

(c) The source is required to install and operate a NO_x

CEMS for each boiler in accordance with Regulation 6.02, section 6.1.3, NO_x RACT Plan, Regulation 6.47, section 3.4 referencing 40 CFR 75.10(a)(2).

2) **SO_2**

(a) Regulation 6.07, section 4.1 establishes the three hour rolling average SO_2 standard for this unit.

(b) In accordance with Acid Rain Permit 144-97-AR (R2), Regulation 6.47, section 3.2 references 40 CFR 73 which has the annual SO_2 emission allowances for each boiler at this source.

(c) The SO_2 emissions cannot meet the standards uncontrolled. The source is required to operate FGDs at all times the respective boiler is in operation in order to comply with the SO_2 standards in accordance with Regulation 2.16, section 4.1.1.

(d) The source is required to install and operate a SO_2 CEMS for each boiler in accordance with Regulation 6.02, section 6.1.3, Regulation 6.47, section 3.4 referencing 40 CFR 75.10(a)(2).

3) **PM**

(a) In accordance with Regulation 6.07, section 3.1, Table 1, the unit has a PM emission standard based on a three hour rolling average.

(b) The PM emissions cannot meet the standards uncontrolled. The source is required to operate the PM control devices at all times the respective boiler is in operation in order to comply with the PM standards in accordance with Regulation 2.16, section 4.1.1.

(c) In accordance with Regulation 6.09, Table 1, PM standards for the coal silos (E2) is:

$$E = 55.0(2000)^{0.11} - 40 = 86.9 \text{ lb/hr}$$

(d) For the coal silos (E2), the owner or operator has shown, by worst-case calculations without allowance for a control device, that the hourly uncontrolled PM emission standard cannot be

exceeded; therefore, no additional monitoring, recordkeeping, or reporting is required to demonstrate compliance with the applicable PM standards specified in Regulation 6.09.

(e) LG&E's proposal for removing COMS for Unit 3 and 4 at Mill Creek station was accepted in a letter from EPA dated Feb. 28, 2007. The District accordingly approved LG&E's request for removing COMS for Unit 4, 5, and 6 for Cane Run providing PM CEMS are appropriately installed for these units.

4) **Opacity**

(a) Regulation 6.07, section 3.2 and 3.3 establishes opacity standards for existing boilers.

(b) Regulation 6.09, section 3.1 establishes opacity standards for the coal silos.

5) **TAC**

(a) Regulation 5.20, 5.21, 5.22, and 5.23 established requirements for Group I sources to demonstrate environmental acceptability.

(b) LG&E Cane Run submitted their TAC Environmental Acceptability Demonstration to the District on December 28, 2006, March 25, 2008, April 9, 2010, April 2, 2012, and May 13, 2014. Compliance with the STAR EA Goals was demonstrated in the source's EA Demonstrations. SCREEN3 air dispersion modeling was performed for each emission unit that has non-de minimis TAC emissions. It was demonstrated that the carcinogen risk and non-carcinogen risk values, calculated using the District approved PTE for each unit and the SCREEN3 model results from the source's EA Demonstration, comply with the STAR EA goals required in Regulation 5.21.

(c) Boiler (E1) has TAC emission standards since its EA Demonstration was based on controlled PTE. If the controlled PTE for the TAC is less than de minimis level, use De Minimis as limit. If the controlled PTE for the TAC is greater than de minimis level,

modeling results were used to calculate risk value to compare to the EA Goals. In this case, control PTE is used as limit. TAC emissions for the coal silos (E2) are de minimis according to Regulation 5.21, section 2.1.

iii. **Monitoring and Recordkeeping**

1) **NO_x**

(a) NO_x RACT Plan establishes monitoring and record keeping requirements for NO_x emissions.

(b) Acid Rain Permit, No.144-97-AR (R2) establishes monitoring and record keeping requirements for NO_x compliance.

2) **SO_2**

Regulation 6.02, section 6.1.2 and 40 CFR 75.50(c) establishes record keeping requirements for SO_2.

3) **PM**

The coal-fired boilers are subject to 40 CFR Part 64 - Compliance Assurance Monitoring (CAM) for Major Stationary Source since SO2, PM, and NOx emissions from each of the boilers may be greater than the major source threshold and control devices are required to achieve compliance with standards. On 8/18/2014, LG&E submitted a revised CAM Plan in which SO2 and NOx CEMS are used for compliance demonstration. PM CEMS is used to demonstrate compliance or provide an indication of continuous PM control.

4) **Opacity**

According to LG&E's request, PM CEMS have been installed, calibrated, maintained, and operated for Unit 1. LG&E requested permission to remove COMS for Unit 3 and 4 under provisions in 40 CFR 60.13(i)(1), "Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances in the effluent gases." LG&E's proposal for Unit 3 and 4 for Mill

Creek was accepted in a letter from EPA dated Feb. 28, 2007. The District accordingly approved LG&E's request for removing COMS for Unit 4, 5, and 6 for Cane Run providing PM CEMS are appropriately installed for these units.

iv. **Reporting**

1) **NO_x**

(a) Regulation 6.02, section 16.1 requires a written report of excess emissions and the nature and cause of the excess emissions.

(b) In accordance with Acid Rain Permit, 40 CFR 75, Subpart G establishes reporting requirements for this pollutant.

2) **SO_2**

(a) Regulation 6.02, section 16.1 requires a written report of excess emissions and the nature and cause of the excess emissions.

(b) In accordance with Acid Rain Permit, 40 CFR 75, Subpart G establishes reporting requirements for this pollutant.

3) **PM**

Regulation 6.02, section 16.1 requires a written report of excess emissions and the nature and cause of the excess emissions.

4) **Opacity**

In accordance with Acid Rain Permit, 40 CFR 75, Subpart G establishes reporting requirements for this pollutant.

c. **Emission Unit U5 -** Electric Utility Steam Generating Unit (EGU) – Unit 5

i. **Equipment:**

Emission Point	Description	Applicable Regulation	Basis for Applicability
U5 – E3	One (1) dry	5.00, 5.01,	Regulations 5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23

Emission Point	Description	Applicable Regulation	Basis for Applicability
	bottom wall-fired boiler, make Riley Stoker, model 3469 Type Reheat, nominal design rating of 1,875 MMBtu/hr, using pulverized coal as the primary fuel and natural gas as the secondary fuel. Installed 1966	5.02, 5.14, 5.20, 5.21, 5.22, 5.23 6.02, 6.07, 6.42, 6.47, 40 CFR 64, 40 CFR72-78	establish the requirements for Environmental Acceptability for TACs. The source is a Group I company with Category 1TACs which potentially could exceed the de minimis values. Regulation 6.02 establishes the general provisions for the application of standards of performance for existing affected facilities which were commenced prior to September 1, 1976. Existing indirect heat exchangers for which commenced prior to September 1, 1972 are subject to Regulation 6.07. Regulation 6.42 applies to the NO_x emissions from all NO_x emitting facilities located at major NO_x source. Regulation 6.47 incorporates the Federal Acid Rain Program for existing sources by reference. 40 CFR 64 establishes compliance assurance monitoring requirements for each unit that has emissions greater than major source threshold and control devices are required to achieve compliance with standards. 40 CFR 72 through 78 contain regulations for Acid Rain Program, including permits, allowance system, CEM, excess emissions, and appeal procedures.
U5 – E4	Three (3) coal silos, make American Air Filter, model Type D, controlled by centrifugal dust collector and equipped with three (3) coal mills, make CE (Raymond), model 763 Type "RS" Bowl Mills. (1966)	5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23, 6.09, 7.08	Regulations 5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23 establish the requirements for Environmental Acceptability for TACs. The source is a Group I company with Category 1TACs which potentially could exceed the de minimis values. Regulation 6.09 establishes the requirements for PM emission from existing processes that commences construction prior to September 1, 1976. Regulation 7.08 establishes the requirements for PM emission from new processes that commences construction after September 1, 1976.

ii. **Standards/Operating Limits**

1) **NO_x**

(a) Acid Rain Permit 144-97-AR (R2) is attached and

considered part of the Title V Operating Permit. Regulation 6.47, section 3.5 references 40 CFR Part 76. The Acid Rain Permit establishes the alternative contemporaneous emissions limitations on an annual average basis for this unit.

(b) The NO_x RACT Plan establishes NO_x emission standards on a rolling 30-day average basis for this unit.

(a) The source is required to install and operate a NO_x CEMS for each boiler in accordance with Regulation 6.02, section 6.1.3, NO_x RACT Plan, Regulation 6.47, section 3.4 referencing 40 CFR 75.10(a)(2).

2) **SO_2**

(a) Regulation 6.07, section 4.1 establishes the three hour rolling average SO_2 standard for this unit.

(b) In accordance with Acid Rain Permit 144-97-AR (R2), Regulation 6.47, section 3.2 references 40 CFR 73 which has the annual SO_2 emission allowances for each boiler at this source.

(c) The SO_2 emissions cannot meet the standards uncontrolled. The source is required to operate FGDs at all times the respective boiler is in operation in order to comply with the SO_2 standards in accordance with Regulation 2.16, section 4.1.1.

(d) The source is required to install and operate a SO_2 CEMS for each boiler in accordance with Regulation 6.02, section 6.1.3, Regulation 6.47, section 3.4 referencing 40 CFR 75.10(a)(2).

3) **PM**

(a) In accordance with Regulation 6.07, section 3.1, Table 1, PM emission standard based on a three hour rolling average for E3 is 0.11 lb/MMBtu.

(b) The PM emissions cannot meet the standards uncontrolled. The source is required to operate the PM control devices at all times the respective boiler is in operation in order to comply with the PM

standards in accordance with Regulation 2.16, section 4.1.1.

(c) In accordance with Regulation 6.09, Table 1, PM standards for the coal silos (E4) is:

$$E = 55.0(2000)^{0.11} - 40 = 86.9 \text{ lb/hr}$$

(d) For the coal silos (E4), the owner or operator has shown, by worst-case calculations without allowance for a control device, that the hourly uncontrolled PM emission standard cannot be exceeded; therefore, no additional monitoring, recordkeeping, or reporting is required to demonstrate compliance with the applicable PM standards specified in Regulation 6.09 is required for this emission point.

(e) LG&E's proposal for removing COMS for Unit 3 and 4 at Mill Creek station was accepted in a letter from EPA dated Feb. 28, 2007. The District accordingly approved LG&E's request for removing COMS for Unit 4, 5, and 6 for Cane Run providing PM CEMS are appropriately installed for these units.

4) **Opacity**

(a) Regulation 6.07, section 3.2 and 3.3 establishes opacity standards for existing boilers.

(b) Regulation 6.09, section 3.1 establishes opacity standards for the coal bunker.

5) **TAC**

(a) Regulation 5.20, 5.21, 5.22, and 5.23 established requirements for Group I sources to demonstrate environmental acceptability.

(b) LG&E Cane Run submitted their TAC Environmental Acceptability Demonstration to the District on December 28, 2006, March 25, 2008, April 9, 2010, April 2, 2012, and May 13, 2014. Compliance with the STAR EA Goals was demonstrated in the source's EA Demonstrations. SCREEN3 air dispersion modeling was performed for each emission unit that has non-de minimis TAC

emissions. It was demonstrated that the carcinogen risk and non-carcinogen risk values, calculated using the District approved PTE for each unit and the SCREEN model results from the source's EA Demonstration, comply with the STAR EA goals required in Regulation 5.21.

(c) Boiler (E3) has TAC emission standards since its EA Demonstration was based on controlled PTE. If the controlled PTE for the TAC is less than de minimis level, use De Minimis as limit. If the controlled PTE for the TAC is greater than de minimis level, modeling results were used to calculate risk value to compare to the EA Goals. In this case, control PTE is used as limit. TAC emissions for the coal silos (E4) are de minimis according to Regulation 5.21, section 2.1.

iii. **Monitoring and Recordkeeping**

1) **NO_x**

(a) NO_x RACT Plan establishes monitoring and record keeping requirements for NO_x emissions.

(b) Acid Rain Permit, No.144-97-AR (R2) establishes monitoring and record keeping requirements for NO_x compliance.

2) **SO_2**

Regulation 6.02, section 6.1.2 and 40 CFR 75.50(c) establishes record keeping requirements for SO_2.

3) **PM**

The coal-fired boilers are subject to 40 CFR Part 64 - Compliance Assurance Monitoring (CAM) for Major Stationary Source since SO2, PM, and NOx emissions from each of the boilers may be greater than the major source threshold and control devices are required to achieve compliance with standards. On 8/18/2014, LG&E submitted a revised CAM Plan in which SO2 and NOx CEMS are used for compliance demonstration. PM CEMS is used to demonstrate compliance or provide an indication of continuous PM control.

4) **Opacity**

According to LG&E's request, PM CEMS have been installed, calibrated, maintained, and operated for Unit 1. LG&E requested permission to remove COMS for Unit 3 and 4 under provisions in 40 CFR 60.13(i)(1), "Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances in the effluent gases." LG&E's proposal for Unit 3 and 4 for Mill Creek was accepted in a letter from EPA dated Feb. 28, 2007. The District accordingly approved LG&E's request for removing COMS for Unit 4, 5, and 6 for Cane Run providing PM CEMS are appropriately installed for these units.

iv. **Reporting**

1) **NO_x**

(a) Regulation 6.02, section 16.1 requires a written report of excess emissions and the nature and cause of the excess emissions.

(b) In accordance with Acid Rain Permit, 40 CFR 75, Subpart G establishes reporting requirements for this pollutant.

2) **SO_2**

(a) Regulation 6.02, section 16.1 requires a written report of excess emissions and the nature and cause of the excess emissions.

(b) In accordance with Acid Rain Permit, 40 CFR 75, Subpart G establishes reporting requirements for this pollutant.

3) **PM**

Regulation 6.02, section 16.1 requires a written report of excess emissions and the nature and cause of the excess emissions.

4) **Opacity**

In accordance with Acid Rain Permit, 40 CFR 75, Subpart G establishes reporting requirements for this pollutant.

d. **Emission Unit U6 -** Electric Utility Steam Generating Unit (EGU) – Unit 6

i. **Equipment:**

Emission Point	Description	Applicable Regulation	Basis for Applicability
U6 – E5	One (1) tangentially boiler, make Combustion Engineering, model Type CCRR, nominal design rating of 2,453 MMBtu/hr, using pulverized coal as the primary fuel and natural gas as the secondary fuel. Installed 1969	5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23 6.02, 6.07, 6.42, 6.47, 40 CFR 64, 40 CFR72-78	Regulation 5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23 establishes the requirements for Environmental Acceptability for TACs. The source is a Group I company with Category 1TACs which potentially could exceed the de minimis values. Regulation 6.02 establishes the general provisions for the application of standards of performance for existing affected facilities which were commenced prior to September 1, 1976. Existing indirect heat exchangers for which commenced prior to September 1, 1972 are subject to Regulation 6.07. Regulation 6.42 applies to the NO_x emissions from all NO_x emitting facilities located at major NO_x source. Regulation 6.47 incorporates the Federal Acid Rain Program for existing sources by reference. 40 CFR 64 establishes compliance assurance monitoring requirements for each unit that has emissions greater than major source threshold and control devices are required to achieve compliance with standards. 40 CFR 72 through 78 contain regulations for Acid Rain Program, including permits, allowance system, CEM, excess emissions, and appeal procedures.
U6 – E6	Five (5) coal silos, make American Air Filter, model Type D, controlled by centrifugal dust collector and	5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23, 6.09	Regulation 5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23 establishes the requirements for Environmental Acceptability for TACs. The source is a Group I company with Category 1TACs which potentially could exceed the de

Emission Point	Description	Applicable Regulation	Basis for Applicability
	equipped with five (5) coal mills, make CE (Raymond), model 703 Type "RS" Bowl Mills. (1969)		minimis values. Regulation 6.09 establishes the requirements for PM emission from existing processes that commences construction prior to September 1, 1976.

ii. **Standards/Operating Limits**

1) **NO_x**

(a) Acid Rain Permit 144-97-AR (R2) is attached and considered part of the Title V Operating Permit. Regulation 6.47, section 3.5 references 40 CFR Part 76. The Acid Rain Permit establishes the alternative contemporaneous emissions limitations on an annual average basis for this unit.

(b) The NO_x RACT Plan establishes NO_x emission standards on a rolling 30-day average basis for this unit.

(c) The source is required to install and operate a NO_x CEMS for each boiler in accordance with Regulation 6.02, section 6.1.3, NO_x RACT Plan, Regulation 6.47, section 3.4 referencing 40 CFR 75.10(a)(2).

2) **SO_2**

(a) Regulation 6.07, section 4.1 establishes the three hour rolling average SO_2 standard for this unit.

(b) In accordance with Acid Rain Permit 144-97-AR (R2), Regulation 6.47, section 3.2 references 40 CFR 73 which has the annual SO_2 emission allowances for each boiler at this source.

(c) The SO_2 emissions cannot meet the standards uncontrolled. The source is required to operate FGDs at all times the respective boiler is in operation in order to comply with the SO_2 standards in accordance with Regulation 2.16, section 4.1.1.

(d) The source is required to install and operate a SO_2 CEMS for each boiler in accordance with Regulation

6.02, section 6.1.3, Regulation 6.47, section 3.4 referencing 40 CFR 75.10(a)(2).

3) **PM**

(a) In accordance with Regulation 6.07, section 3.1, Table 1, PM emission standard based on a three hour rolling average for E5 is 0.11 lb/MMBtu.

(b) The PM emissions cannot meet the standards uncontrolled. The source is required to operate the PM control devices at all times the respective boiler is in operation in order to comply with the PM standards in accordance with Regulation 2.16, section 4.1.1.

(c) In accordance with Regulation 6.09, Table 1, PM standards for the coal silos (E6) is:

$$E = 55.0(2000)^{0.11} - 40 = 86.9 \text{ lb/hr}$$

(d) For the coal silos (E6), the owner or operator has shown, by worst-case calculations without allowance for a control device, that the hourly uncontrolled PM emission standard cannot be exceeded; therefore, no additional monitoring, recordkeeping, or reporting is required to demonstrate compliance with the applicable PM standards specified in Regulation 6.09 is required for this emission point.

(e) LG&E's proposal for removing COMS for Unit 3 and 4 at Mill Creek station was accepted in a letter from EPA dated Feb. 28, 2007. The District accordingly approved LG&E's request for removing COMS for Unit 4, 5, and 6 for Cane Run providing PM CEMS are appropriately installed for these units.

4) **Opacity**

(a) Regulation 6.07, section 3.2 and 3.3 establishes opacity standards for existing boilers.

(b) Regulation 6.09, section 3.1 establishes opacity standards for the coal bunker.

5) **TAC**

(a) Regulation 5.20, 5.21, 5.22, and 5.23 established requirements for Group I sources to demonstrate environmental acceptability.

(b) LG&E Cane Run submitted their TAC Environmental Acceptability Demonstration to the District on December 28, 2006, March 25, 2008, April 9, 2010, April 2, 2012, and May 13, 2014. Compliance with the STAR EA Goals was demonstrated in the source's EA Demonstrations. SCREEN3 air dispersion modeling was performed for each emission unit that has non-de minimis TAC emissions. It was demonstrated that the carcinogen risk and non-carcinogen risk values, calculated using the District approved PTE for each unit and the SCREEN model results from the source's EA Demonstration, comply with the STAR EA goals required in Regulation 5.21.

(c) Boiler (E5) has TAC emission standards since its EA Demonstration was based on controlled PTE. If the controlled PTE for the TAC is less than de minimis level, use De Minimis as limit. If the controlled PTE for the TAC is greater than de minimis level, modeling results were used to calculate risk value to compare to the EA Goals. In this case, control PTE is used as limit. TAC emissions for the coal silos (E6) are de minimis according to Regulation 5.21, section 2.1.

iii. **Monitoring and Recordkeeping**

1) **NO_x**

(a) NO_x RACT Plan establishes monitoring and record keeping requirements for NO_x emissions.

(b) Acid Rain Permit, No.144-97-AR (R2) establishes monitoring and record keeping requirements for NO_x compliance.

2) **SO_2**

Regulation 6.02, section 6.1.2 and 40 CFR 75.50(c)

establishes record keeping requirements for SO_2.

3) **PM**

The coal-fired boilers are subject to 40 CFR Part 64 - Compliance Assurance Monitoring (CAM) for Major Stationary Source since SO2, PM, and NOx emissions from each of the boilers may be greater than the major source threshold and control devices are required to achieve compliance with standards. On 8/18/2014, LG&E submitted a revised CAM Plan in which SO2 and NOx CEMS are used for compliance demonstration. PM CEMS is used to demonstrate compliance or provide an indication of continuous PM control.

4) **Opacity**

LG&E's proposal for removing COMS for Unit 3 and 4 at Mill Creek station was accepted in a letter from EPA dated Feb. 28, 2007. The District accordingly approved LG&E's request for removing COMS for Unit 4, 5, and 6 for Cane Run providing PM CEMS are appropriately installed for these units.

iv. **Reporting**

1) **NO_x**

(a) Regulation 6.02, section 16.1 requires a written report of excess emissions and the nature and cause of the excess emissions.

(b) In accordance with Acid Rain Permit, 40 CFR 75, Subpart G establishes reporting requirements for this pollutant.

2) **SO_2**

(a) Regulation 6.02, section 16.1 requires a written report of excess emissions and the nature and cause of the excess emissions.

(b) In accordance with Acid Rain Permit, 40 CFR 75, Subpart G establishes reporting requirements for this pollutant.

3) **PM**

Regulation 6.02, section 16.1 requires a written report of excess emissions and the nature and cause of the excess emissions.

4) **Opacity**

In accordance with Acid Rain Permit, 40 CFR 75, Subpart G establishes reporting requirements for this pollutant.

e. **Emission Unit U7** – Sludge processing plant

i. **Equipment:**

Emission Point	Description	Applicable Regulation	Basis for Applicability
U7 – E9	North bin silo, make Mikro-Pulsaire, capacity 7 ton/hr, installed 1980.	2.04, 5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23, 7.08	Regulation 2.04 establishes requirements for the construction, modification of stationary sources within, or impacting upon, areas where the national ambient air quality standards have not been attained. Regulation 5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23 establishes the requirements for Environmental Acceptability for TACs. The source is a Group I company with Category 1TACs which potentially could exceed the de minimis values. Regulation 7.08 establishes the requirements for PM emission from new processes that commences construction after September 1, 1976.
U7 – E10	Unit 4 & 5 SPP flyash silo, make Flex-Kleen, capacity 20 ton/hr, installed 1981		
U7 – E11	Unit 4 &5 SPP lime silo, make Mikro-Pulasire, capacity 30 ton/hr, installed 1981		
U7 – E12	Unit 4 &5 SPP pug mill mixer, make Tri-Mer, capacity 95 ton/hr, installed 1992	5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23, 7.08	
U7 – E13	Unit 6 SPP flyash silo, make Flex-Kleen, capacity 20 ton/hr, installed 1980	2.04, 5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23, 7.08	
U7 – E14	Unit 6 SPP lime silo, make Mikro-Pulasire, capacity 30 ton/hr, installed 1980		
U7 – E22	Unit 6 SPP lime screw conveyor, make Bulk Conveyor Specialists, capacity 2 ton/hr, installed 2007	5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23, 7.08	
U7 – E23	Unit 6 SPP flyash screw conveyor, make Bulk Conveyor Specialists, capacity 40 ton/hr, installed 2007		
U7 – E24	Unit 6 SPP lime/flyash screw conveyor, make Bulk Conveyor Specialists, capacity 40 ton/hr, installed 2007		

Emission Point	Description	Applicable Regulation	Basis for Applicability
	Ash conditioner (mixer) A and B, make Bulk Conveyor Specialists, capacity 100 ton/hr for each*		
* The mixers are not listed as emission points due to zero PM emissions			

ii. **Standards/Operating Limits**

1) **PM**

(a) In accordance with Regulation 7.08, Table 1, PM standards are determined by the following equations:

$E = 3.59(P)^{0.62}$ if P <= 30 tons/hr

$E = 17.31(P)^{0.16}$ if P > 30 tons/hr

(b) For E9, E10, E11, E12, E13, E14, E22, E23, and E24, it has been demonstrated that the PM emissions cannot exceed the PM standards specified in Regulation 7.08 uncontrolled.

(c) According to Regulation 2.04, the limit of 25 tons per year for PM is included in the permit as non-attainment NSR avoidance limits. This emission standard comes from their construction permit C-0126-1002-14, which was issued in August, 2014 to replace construction permit 66-86, 67-86, 68-86, 69-86, 70-86, 71-86, 72-86, 73-86, 74-86, 75-86, 76-86, and 77-86. The uncontrolled combined PM emissions from E9, E10, E11, E13, E14, and E16 may exceed this PM emission limit. Therefore the owner or operator is required to operate the control devices at all times that the units are in operation. Control devices for the pug mill mixer (E12) are required to be operated at all times because of visible emissions and TAC emissions.

2) **Opacity**

(a) Regulation 7.08, section 3.1.1 establishes an opacity standard of less than 20%.

(b) The source is required to utilize both controls, C14a and C14b at all times the process equipment is in operation. According to Agreed Board Order No. 12-01, the owner or operator is required to conduct

hourly visible emission surveys and take corrective action when necessary. The opacity surveys can be performed on the building exhaust points since the process and its control devices vent inside the building.

3) **TAC**

(a) Regulation 5.20, 5.21, 5.22, and 5.23 established requirements for Group I sources to demonstrate environmental acceptability.

(b) LG&E Cane Run submitted their TAC Environmental Acceptability Demonstration to the District on December 28, 2006, March 25, 2008, April 9, 2010, April 2, 2012, and May 13, 2014. Compliance with the STAR EA Goals was demonstrated in the source's EA Demonstrations. SCREEN3 air dispersion modeling was performed for each emission unit that has non-de minimis TAC emissions. It was demonstrated that the carcinogen risk and non-carcinogen risk values, calculated using the District approved PTE for each unit and the SCREEN model results from the source's EA Demonstration, comply with the STAR EA goals required in Regulation 5.21.

(c) For the north bin silo (E9), the potential uncontrolled emissions of all TACs are below the de minimis threshold levels except for Chromium VI and Arsenic. In lieu of performing environmental acceptability demonstration by modeling, the source is required to demonstrate that the Chromium VI and Arsenic emissions from this equipment are under de minimis in accordance with Regulation 2.16, section 4.1.1.

(d) For the pug mill mixer (E12), the potential uncontrolled TACs are below the de minimis threshold levels except for Arsenic. The Arsenic emission can exceed its de minimis level (0.11 lb/yr and 0.00012 lb/hr) uncontrolled, but not controlled. The potential emissions of Arsenic after either the wet cyclone dust collector (C14a) or the HEPA filter (C14b) are below their de minimis levels. The pug mill mixer is required to be controlled by either C14a

or C14b at all time with respect to STAR compliance in accordance with Regulation 2.16, section 4.1.1.

f. **Emission Unit U8** – Unit 6 SDRS soda ash storage silo

i. **Equipment:**

Emission Point	Description	Applicable Regulation	Basis for Applicability
U8 – E16	Unit 6 SDRS soda ash storage silo, make Flex-Kleen. Installed 1979.	2.04, 7.08	Regulation 2.04 establishes requirements for the construction, modification of stationary sources within, or impacting upon, areas where the national ambient air quality standards have not been attained. Regulation 7.08 establishes the requirements for PM emission from new processes that commences construction after September 1, 1976.

ii. **Standards/Operating Limits**

1) **PM**

(a) In accordance with Regulation 7.08, Table 1, PM standard for this unit is determined by the following equations:

$$E = 17.31(P)^{0.16} \qquad \text{if } P > 30 \text{ tons/hr}$$

(b) It has been demonstrated that the PM emission from this unit cannot exceed the PM standards specified in Regulation 7.08 uncontrolled.

(c) According to Regulation 2.04, the limit of 25 tons per year for PM is included in the permit as PSD avoidance limits. This emission standard comes from their construction permit C-0126-1002-14, which was issued in August, 2014 to replace construction permit 66-86, 67-86, 68-86, 69-86, 70-86, 71-86, 72-86, 73-86, 74-86, 75-86, 76-86, and 77-86. The uncontrolled combined PM emissions from E9, E10, E11, E13, E14, and E16 may exceed this PM emission limit. Therefore the owner or operator is required to operate the control devices at all times that the units are in operation. Control devices for the pug mill mixer (E12) are required to be operated at all times because of visible emissions

and TAC emissions.

2) **Opacity**

Regulation 7.08, section 3.1.1 establishes an opacity standard of less than 20%.

g. **Emission Unit U10** – Coal handling facilities

i. **Equipment:**

Emission Point	Description	Applicable Regulation	Basis for Applicability
U10 – E18	One (1) coal radial stacker, rated capacity 1,000 tons/hr. Installed 1997.	5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23, 6.09, 7.02, 40 CFR 60, Subpart Y	Regulation 5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23 establishes the requirements for Environmental Acceptability for TACs. The source is a Group I company with Category 1TACs which potentially could exceed the de minimis values. Regulation 6.09 establishes the requirements for PM emission from existing processes that commences construction prior to September 1, 1976. Regulation 7.08 establishes the requirements for PM emission from new processes that commences construction after September 1, 1976. 40 CFR 60, Subpart Y establishes national emission limitations and work practice standards for coal preparation and processing plants that process more than 200 tons of coal per day.
U10 – E20	One (1) coal crusher, rated capacity 1,000 tons/hr. Installed 1954/1991.		
U10 – E21	Eighteen (18) coal belt conveyors, rated capacity 1,000 tons/hr for each. Installed 1954	5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23, 7.02, 7.08	
U10 – E25	One (1) railcar unloading hopper, rated capacity 1,000 tons/hr. Installed 1954		

ii. **Standards/Operating Limits**

1) **PM**

(a) In accordance with Regulation 7.08, Table 1, PM standards for E18 and E20 are determined as the following:

$$E = 17.31(1{,}000)^{0.16} = 52.3 \text{ lb/hr}$$

(b) In accordance with Regulation 6.09, Table 1, PM standards for each emission point is determined by the following equations:

$$E = 55.0(1000)^{0.11} - 40 = 77.6 \text{ lb/hr}$$

(c) It has been demonstrated that the PM emissions cannot exceed the PM standards specified in Regulation 6.09 and Regulation 7.08 uncontrolled. Therefore there are no monitoring, record keeping, and reporting requirements with respect to the PM lb/hr emission standards.

2) **Opacity**

Regulation 6.09, section 3.1, Regulation 7.08, section 3.1.1, and 40 CFR 60.254(a) establishes an opacity standard of less than 20%.

3) **TAC**

(a) Regulation 5.20, 5.21, 5.22, and 5.23 established requirements for Group I sources to demonstrate environmental acceptability.

(b) Each TAC contained in coal is less than 0.1% by weight. According to Regulation 5.21, section 2.1, emissions of TACs from this coal handling operation are de minimis.

h. **Emission Unit U11** – Gas Turbine GT11

i. **Equipment:**

Emission Point	Description	Applicable Regulation	Basis for Applicability
U11 – E7	One (1) gas turbine GT11, rated capacity 247 MMBtu/hr, make Westinghouse, model W191G, using natural gas as a primary fuel and #2 fuel oil as secondary fuel, equipped with a 430 HP diesel cranking engine. Installed 1968	5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23, 6.42 40 CFR 63, Subpart ZZZZ	Regulation 5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23 establishes the requirements for Environmental Acceptability for TACs. The source is a Group I company with Category 1TACs which potentially could exceed the de minimis values. Regulation 6.42 establishes the requirements for Reasonably Available Control Technology (RACT) determination, demonstration, and compliance for Volatile Organic Compound (VOC) and Nitrogen Oxides (NOx) emitting facilities for new or renewed operating permit applications. 40CFR63 Subpart ZZZZ establishes national emission limitations and operating limitations for HAP emitted from stationary RICE located at major and area sources of HAP emissions.

ii. **Standards/Operating Limits**

1) **NO_x**

The NO_x RACT Plan establishes a limit of 500 operating hours per calendar year for this unit.

2) **TAC**

(a) Regulation 5.20, 5.21, 5.22, and 5.23 established requirements for Group I sources to demonstrate environmental acceptability.

(b) LG&E Cane Run submitted their TAC Environmental Acceptability Demonstration to the District on December 28, 2006, March 25, 2008, April 9, 2010, April 2, 2012, and May 13, 2014. Compliance with the STAR EA Goals was demonstrated in the source's EA Demonstrations. SCREEN3 air dispersion modeling was performed for each emission unit that has non-de minimis TAC emissions. It was demonstrated that the carcinogen risk and non-carcinogen risk values, calculated using the District approved PTE for each unit and the SCREEN model results from the source's EA Demonstration, comply with the STAR EA goals required in Regulation 5.21.

3) **HAP**

40 CFR 63.6595, 6603, 6605, 6625, and 6640 establish emission standards and operation requirements for the owner or operator or manufacturer of stationary CI ICE.

iii. **Monitoring and Recordkeeping**

1) **NO_x**

The NO_x RACT Plan establishes monitoring and record keeping requirements for this unit in order to demonstrate compliance with the 500 hr/yr operating limit.

2) **HAP**

40 CFR 63.6625 and 6655 establish monitoring and record

keeping requirements for the stationary CI ICE.

iv. **Reporting**

1) **NO_x**

The NO_x RACT Plan establishes reporting requirements for this unit in order to demonstrate compliance with the 500 hr/yr operating limit.

2) **HAP**

40 CFR 63.6640 establish reporting requirements for the stationary CI ICE.

i. **Emission Unit U14** – Porta batch units

i. **Equipment:**

Emission Point	Description	Applicable Regulation	Basis for Applicability
U14 – E27	One (1) Porta Batch lime slurry mixer (PB1000), make Porta Batch Chemical Lime, capacity 12.5 ton/hr, equipped with an electric motor. Installed 2002	7.08	Regulation 7.08 establishes the requirements for PM emission from new processes that commences construction after September 1, 1976.
U14 – E28	One (1) Porta Batch lime slurry mixer (PB2000), make Porta Batch Chemical Lime, capacity 12.5 ton/hr, equipped with an electric motor. Installed 2002	7.08	
U14 – E29	One (1) Porta Batch lime slurry mixer (PB3000), make Porta Batch Chemical Lime, capacity 12.5 ton/hr, equipped with an electric motor. Installed 2002	7.08	
U14 – E30	One (1) Porta Batch lime slurry mixer (PB4000), make Porta Batch Chemical Lime, capacity 12.5 ton/hr equipped with an electric motor. Installed 2007	7.08	

ii. **Standards/Operating Limits**

1) **PM**

(a) In accordance with Regulation 7.08, Table 1, PM standard for the three Porta batch lime slurry mixers

E27, E28, and E29 is determined by the following equations:

$E = 17.31(P)^{0.16}$ if P > 30 tons/hr
$E = 17.31(37.5)^{0.16} = 30.9$ lb/hr

(b) In accordance with Regulation 7.08, Table 1, PM standard for Porta batch lime slurry mixer E30 is determined by the following equations:

$E = 55.0(P)^{0.11} - 40$ if P < 30 tons/hr
$E = 55.0(12.5)^{0.11} – 40 = 17.18$ lb/hr

(c) It has been demonstrated that the PM emissions cannot exceed the PM standards specified in Regulation 7.08 uncontrolled. Therefore there are no monitoring, record keeping, and reporting requirements with respect to the PM lb/hr emission standards.

(d) LG&E has agreed to a PM emission limit of 4.99 ton per 12 consecutive month period and a PM10 emission limit of 4.00 ton 12 consecutive month period from Porta batch lime slurry mixers E27, E28, and E29 in order to avoid the requirements of Regulation 2.05 (PSD).

(e) LG&E requested the throughput limit of 163,800 tons/yr for Porta batch lime slurry mixers E27, E28, and E29 in the permit application dated 10/22/2002 in accordance with Regulation 2.05, section 1, section 2.19, and Appendix A.

2) **Opacity**

Regulation 7.08, section 3.1.1 establishes an opacity standard of less than 20%.

j. **Emission Unit U15** – Natural gas-fired combined cycle (NGCC) unit

i. **Equipment:**

Emission Point	Description	Applicable Regulation	Basis for Applicability
U15 (E31 and E32)	Two (2) natural gas-fired combustion	5.00, 5.01, 5.02, 5.14,	Regulation 5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23 establishes the

Emission Point	Description	Applicable Regulation	Basis for Applicability
	turbines (F Class), designated as GT-7A and GT-7B, make Siemens Energy, model SGT6-5000F.EE, each equipped with a heat recovery steam generator (HRSG).	5.20, 5.21, 5.22, 5.23	requirements for Environmental Acceptability for TACs. The source is a Group I company with Category 1TACs which potentially could exceed the de minimis values.
		6.42	Regulation 6.42 applies to the NO_x emissions from all NO_x emitting facilities located at major NO_x source.
		6.47	Regulation 6.47 incorporates the Federal Acid Rain Program for existing sources by reference.
		7.09	Regulation 7.09 applies to each affected facility which has gas stream that is not elsewhere subject to a standard of performance within Regulation 7 with respect to H_2S, SO_2, and CO, and commenced construction, modification or reconstruction on or after April 19, 1972.
		40 CFR 60 Subpart KKKK	40 CFR60, Subpart KKKK establishes emission standards and compliance schedules for the control of emissions from stationary combustion turbines that commenced construction, modification or reconstruction after February 18, 2005.
		40 CFR 72-73, 75-78	40 CFR 72 through 78 contain regulations for Acid Rain Program, including permits, allowance system, CEM, excess emissions, and appeal procedures.

i. **Standards/Operating Limits**

1) **NO_x**

(a) 40 CFR 60.4320(a) establishes NO_x emission standards of 15 ppm at 15% O_2 or 54 ng/J of useful output (0.43 lb/MWh), based upon a 30-day rolling average. These standards were adopted by NO_x RACT Plan.

(b) Acid Rain Permit 144-97-AR (R1) does not have applicable NO_x limits set by 40 CFR 76 for the

newly constructed emission unit.

2) **SO_2**

(a) 40 CFR 60.4330(a) establishes SO_2 standards for stationary combustion turbines. The source may elect to comply with the SO_2 emission standards 110 ng/J (0.90 lb/MWh) gross output or 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input.

(b) Regulation 7.09, section 4 establishes SO_2 standard for a process gas stream. The District has determined that the SO_2 standard under Regulation 7.09 (28.63 grains/100 dscf) is less stringent than the standard under 40 CFR 60, Subpart KKKK (0.06 lb/MMBtu). According to Regulation 7.02, section 5, the combustion turbines are not subject to the SO_2 standard under Regulation 7.09.

(c) Acid Rain Permit 144-97-AR (R1) does not have a SO_2 allowances for newly constructed emission unit per EPA Acid Rain Program.

3) **CO**

(a) The source takes the limit of 510.8 tons per year in order to avoid PSD review for CO in accordance with Regulation 2.05.

(b) Regulation 7.09, section 4 establishes CO standard for a process gas stream. The District has determined that the combustion process in turbines meet the requirements in Regulation 7.09, section 4.

4) **VOC**

The source takes the limit of 97.0 tons per year in order to avoid PSD review for VOC in accordance with Regulation 2.05.

5) **HAP**

The source takes the limits of 10 tons for a single HAP or 25 tons for total HAPs in order to avoid major source for HAP.

6) **TAC**

(a) Regulation 5.20, 5.21, 5.22, and 5.23 established requirements for Group I sources to demonstrate environmental acceptability.

(b) LG&E submitted their TAC Environmental Acceptability Demonstration to the District on December 28, 2006, March 25, 2008, and April 9, 2010, April 2, 2012, and May 13, 2014 in which the source has demonstrated compliance with the EA Goals. The proposed project is natural gas-fired NGCC unit. Per Regulation 5.21, section 2.4, the TAC emissions from the combustion of natural gas are "de minimis emissions".

7) **Unit Operation**

The source has PSD avoidance limit in accordance with Regulation 2.05. The existing emission unit U4, U5, U6, U7, U8, U10, U12, and U14 shall be shut down within the contemporaneous period of the NGCC unit construction project in order to have their emission decreases to be eligible for PSD/NSR netting analysis. According to 40 CFR 52.21(b)(3)(ii), the contemporaneous period is defined as "between the date five years before construction on the particular change commences and the date that the increase from the particular change occurs".

ii. **Monitoring and Recordkeeping**

1) **NO_x**

(a) The source is required to install and operate a NO_x CEMS for each combustion turbine in accordance with NO_x RACT Plan and 40 CFR 60.4335(b) and 4340(b)(1). According to 40 CFR 60.4335 and 60.4340, depending on whether a water or steam injection is used for NO_x control, the owner or operator may elect to use one of the continuous monitoring system for fuel and water/steam, continuous emission monitoring system (CEMS), performance test, or continuous parameter monitoring system to demonstrate compliance with NO_x limit. LG&E has elected to use NO_x CEMS for the units.

(b) 40 CFR 60.4345 establishes requirements for the performance evaluations of NO_x CEMS.

(c) 40 CFR 60.4350 establishes the guidelines for identifying excess NO_x emissions.

2) **SO_2**

40 CFR 60.4360, 4365, and 4370 establishes monitoring and record keeping requirements to assure compliance with SO_2 standards under 40 CFR 60.4330(a).

3) **CO**

(a) The owner or operator elected to utilize a CO CEMS to monitor CO emissions and demonstrate compliance with the PSD avoidance emission cap in accordance with Regulation 2.03, section 5.1.

(b) The source is required to keep records, calculate emissions, and keep records of plant wide CO emissions in accordance with 40 CFR 52.21(r)(6).

4) **VOC**

The source is required to keep records, calculate emissions, and keep records of plant wide VOC emissions in accordance with 40 CFR 52.21(r)(6).

5) **HAP**

The source is required to keep records, calculate emissions, and keep records of plant wide HAP emissions in accordance with Regulation 2.16, section 4.1.9.1 and 4.1.9.2.

iii. **Reporting**

1) **General reporting requirements**

(a) The quarterly reporting requirement is based on Title V permit and Regulation 6.02. According to Regulation 6.02, section 16.1, owners or operators of facilities required to install CEMS shall submit for every calendar quarter, a written report of excess

emissions and the nature and cause of the excess emissions if known. The reports of excess emissions and monitor downtime required by 40 CFR 60.4375(a) can be combined with the quarterly compliance report.

(b) 40 CFR 60.7 (c) establishes requirements for the written reports of excess emissions.

2) **NO_x**

40 CFR 60.4380(b) establishes reporting requirements for periods of excess emissions and monitor downtime.

iv. **Testing**

1) **General testing requirements**

The source is required conduct performance tests following the District's general testing requirements in accordance with Regulation 1.04.

2) **Determination of monitoring parameters**

Regulation 2.16, section 4.1.9 requires testing to assure compliance with the terms and conditions of the permit. The source is required to establish an appropriate parameter range for the normal operation of the catalytic oxidizers.

3) **NOx**

(a) 40 CFR 60.4400(a)) requires the owner or operator must conduct an initial performance test, as required in 40 CFR 60.8.

(b) If the owner or operator elects to install and certify a NO_x-diluent CEMS under § 60.4345, then the initial performance test required under § 60.8 may be performed in the following alternative manner per 40 CFR 60.4405.

(c) 40 CFR 60.4400(b) establishes specific requirements for NO_x performance test.

4) **SO_2**

If the owner or operator elects to monitor the total sulfur content of the fuel being fired in the turbine, the sulfur content of the fuel must be determined using total sulfur methods as described in 40 CFR 60.4415(a).

5) **VOC**

Regulation 2.16, section 4.1.9 requires testing to assure compliance with the terms and conditions of the permit. The source is required to perform an EPA Reference Method 25A performance test within 180 days of becoming operation and begins to emit a particular pollutant in order to determine emission rate for VOC.

6) **HAP**

Regulation 2.16, section 4.1.9 requires testing to assure compliance with the terms and conditions of the permit. The source is required to perform an EPA Reference Method 320 performance test within 180 days of becoming operation and begins to emit a particular pollutant in order to determine emission rate for Formaldehyde (CAS 50-00-0).

k. **Emission Unit U16** – Natural gas-fired auxiliary boiler

i. **Equipment:**

Emission Point	Description	Applicable Regulation	Basis for Applicability
U16- E33	One (1) natural gas-fired auxiliary boiler with low NOx burners, make Cleaver Brooks, model CP-NB-200D-45-250, capacity 59.9 MMBtu/hr. Installed 2014/2015	5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23 6.42 7.06 40 CFR 60 Subpart D_c	Regulation 2.05 adopts the Federal Prevention of Significant Deterioration of Air Quality program and provides for the prevention of significant deterioration of air quality where the national ambient air quality standards have been achieved.
			Regulation 5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23 establishes the requirements for Environmental Acceptability for TACs. The source is a Group I company with Category 1TACs which potentially could exceed the de minimis values.
			Regulation 6.42 applies to the NOx emissions from all NOx emitting facilities located at major NOx source. The source accepts the fuel usage limit to avoid Regulation 6.42.

Emission Point	Description	Applicable Regulation	Basis for Applicability
			New indirect heat exchangers for which having a capacity less than 250 MMBtu/hr and commenced after September 1, 1972, are subject to Regulation 7.06.
			The institutional steam generating unit is subject to 40 CFR60, Subpart Dc if the commencement date of construction is after June 9, 1989 and the heat input capacity is less than 100 MMBtu/hr, but greater than 10 MMBtu/hr.

ii. **Standards/Operating Limits**

1) **NO_x**

The NO_x RACT Plan establishes NO_x emission standard, 3.60 lb/hr, based on the manufacturer's certified emission factor.

2) **SO_2**

(a) For unit U16, the total heat input capacity of all affected facilities within the source is 99.9 MMBtu/hr.

In accordance with Regulation 7.06, section 5.1.1, since the total heat input capacity within the source is less than 145 MMBtu, the SO_2 emission standards for combustion of gaseous fuel is 1.0 lb/MMBtu.

(b) The boilers are subject to Regulation 7.06. According to Regulation 7.09, section 1.1, the boilers is not subject to Regulation 7.09.

(c) A one-time PM and SO_2 compliance demonstration has been performed for the boiler, using AP-42 emission factors and combusting natural gas, and the emission standards under Regulation 7.06 for PM and SO_2 cannot be exceeded when combusting natural gas.

3) **PM**

(a) For unit U16, the total heat input capacity of all

affected facilities within the source is 99.9 MMBtu/hr. In accordance with Regulation 7.06, section 4.1.3, PM limit is 0.154 lb/MMBtu

(b) A one-time PM and SO_2 compliance demonstration has been performed for the boiler, using AP-42 emission factors and combusting natural gas, and the emission standards under Regulation 7.06 for PM and SO_2 cannot be exceeded when combusting natural gas.

4) **Opacity**

(a) Regulation 7.06, section 4.2 establishes opacity standards for the boiler.

(b) The District has determined that using a natural gas fired boiler will inherently meet the 20% opacity standard. Therefore, the company is not required to perform periodic monitoring to demonstrate compliance with the opacity standard when combusting natural gas.

5) **TAC**

(a) Regulation 5.20, 5.21, 5.22, and 5.23 established requirements for Group I sources to demonstrate environmental acceptability.

(b) Per Regulation 5.21, section 2.4, the TAC emissions from the combustion of natural gas are considered to be "de minimis emissions" by the District. Therefore unit is exempt from environmental acceptability (EA) demonstration.

iii. **Monitoring and Recordkeeping**

1) **NOx**

The NO_x RACT Plan establishes monitoring and record keeping requirements to assure compliance with the NO_x emission standards.

2) **SO_2**

40 CFR 60.48c(g) establishes recording keeping

requirements for SO_2.

3) **PM**

A one-time PM compliance demonstration has been performed for the boiler, using AP-42 emission factors and combusting natural gas, and the emission standards under Regulation 7.06 for PM cannot be exceeded when combusting natural gas.

4) **Opacity**

The District has determined that using a natural gas fired boiler will inherently meet the 20% opacity standard. Therefore, the company is not required to perform periodic monitoring to demonstrate compliance with the opacity standard when combusting natural gas.

iv. **Reporting**

1) **NOx**

Regulation 7.06 and 40 CFR 60, Subpart Dc does not require any specific reporting requirements for NO_x, however, Regulation 2.16 section 4.1.9.3 requires sufficient reporting to assure ongoing compliance with the terms and conditions of the permit.

2) **SO_2**

There are no routine reporting requirements for this pollutant.

3) **PM**

A one-time PM compliance demonstration has been performed for the boiler, using AP-42 emission factors and combusting natural gas, and the emission standards under Regulation 7.06 for PM cannot be exceeded when combusting natural gas.

4) **Opacity**

The District has determined that using a natural gas fired boiler will inherently meet the 20% opacity standard. Therefore, the company is not required to perform periodic

monitoring to demonstrate compliance with the opacity standard when combusting natural gas.

l. **Emission Unit U18** – Emergency generator

i. **Equipment:**

Emission Point	Description	Applicable Regulation	Basis for Applicability
U18- E35	One (1) Emergency diesel generator, make Caterpillar, model C27, maximum output 1,006 hp (750 KW), equipped with a 660 gallons storage tank. Model year 2014.	5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23 40CFR60 Subpart IIII, 40CFR63 Subpart ZZZZ	Regulation 5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23 establishes the requirements for Environmental Acceptability for TACs. The source is a Group I company with Category 1TACs which potentially could exceed the de minimis values.
			40CFR60 Subpart IIII applies to manufacturers, owner or operators of new stationary compression ignition internal combustion engines.
			40CFR63 Subpart ZZZZ establishes national emission limitations and operating limitations for HAP emitted from stationary RICE located at major and area sources of HAP emissions.

ii. **Standards/Operating Limits**

1) **Operation**

(a) This emergency generator is subject to 40 CFR 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, because it involves a stationary reciprocating internal combustion engine (RICE) located at an area source of HAP emissions. However, according to 40 CFR 63.6590(c), this emergency generator must meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. No further requirements apply for the engine under 40 CFR 63 Subpart ZZZZ.

(b) 40 CFR 60.4202, 4205, 4211 establish unit operation requirements for the nonroad engines.

2) **SO_2**

40 CFR 60.4207(b) and 40 CFR 80.510(b)(1)(i) require diesel fuel that contains less than 15 ppm of sulfur.

3) **HAP**

The equipment listed in this emission unit is subject to 40 CFR 63, Subpart ZZZZ, however, there are no HAP standards.

4) **TAC**

(a) Regulation 5.20, 5.21, 5.22, and 5.23 established requirements for Group I sources to demonstrate environmental acceptability.

(b) The source submitted an EA demonstration for U18 (emergency generator) on June 13, 2011, using AERMOD dispersion model, and demonstrated that U18 is in compliance with STAR program.

iii. **Monitoring and Recordkeeping**

1) **Operation**

40 CFR 60.4209 and 4214 establish recordkeeping requirements for this unit.

2) **SO_2**

40 CFR 80.510(b)(1)(i) establishes sulfur content requirement for diesel fuel used in nonroad engines.

3) **HAP**

The equipment listed in this emission unit is subject to 40 CFR 63, Subpart ZZZZ, however, there are no monitoring or record keeping requirements for HAP.

iv. **Reporting**

1) **HAP**

The equipment listed in this emission unit is subject to 40

CFR 63, Subpart ZZZZ, however, there are no reporting requirements for HAP.

m. **Emission Unit U19** – Haul roads

i. **Equipment:**

Emission Point	Description	Applicable Regulation	Basis for Applicability
U19–E36a	Paved road particulate emissions	1.14	Regulation 1.14 establishes the requirements for the control of fugitive particulate emissions for any source.
U19-36b	Unpaved road particulate emissions		

ii. **Standards/Operating Limits**

1) **PM**

Regulation 1.14, section 2.1 establishes work practice standards to prevent particulate matter from becoming airborne beyond the work site.

2) **Opacity**

Regulation 1.14, section 2.3 establishes standards for opacity.

n. **Emission Unit U20** – Landfill

i. **Equipment:**

Emission Point	Description	Applicable Regulation	Basis for Applicability
U20–E37	Landfill emissions including haul roads on landfill area, drop point emissions, and wind erosion emissions.	5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23, 1.14	Regulation 1.14 establishes the requirements for the control of fugitive particulate emissions for any source. Regulation 5.00, 5.01, 5.02, 5.14, 5.20, 5.21, 5.22, 5.23 establishes the requirements for Environmental Acceptability for TACs. The source is a Group I company with Category 1TACs which potentially could exceed the de minimis values.

ii. **Standards/Operating Limits**

1) **PM**

Regulation 1.14, section 2.1 establishes work practice standards to prevent particulate matter from becoming airborne beyond the work site.

2) **Opacity**

Regulation 1.14, section 2.3 establishes standards for opacity.

3) **TAC**

(a) Regulation 5.20, 5.21, 5.22, and 5.23 established requirements for Group I sources to demonstrate environmental acceptability.

(b) LG&E submitted a TAC Environmental Acceptability Demonstration for this unit on May 30, 2012, in which the source has demonstrated compliance with the EA Goals.

III. Other Requirements

1. Temporary Sources: The source did not request to operate any temporary facilities.

2. Short Term Activities: The source did not report any short term activities.

3. Emissions Trading: N/A

4. Operational Flexibility: The source did not request any operational flexibility.

5. Compliance History:

Incident Date	Regulation Violated	Result
2/16/2011	Reg. 1.14 Section 2, failure to take reasonable precautions to prevent emission	Board Order 4/18/2012
6/21/2011	Reg. 1.09, general prohibition Reg. 1.14, Section 2, failure to take reasonable precautions to prevent emission Reg. 1.07, Section 4, failure to report excess emissions	Board Order 4/18/2012

Incident Date	Regulation Violated	Result
2/15/2012	Reg. 1.14, Section 2, visible fugitive emissions beyond the property line	Board Order 4/17/2013
3/21/2012	Reg. 1.14, Section 2, failure to control fugitive particulate emissions	Board Order 11/20/2013
4/20/2012	Reg. 1.14, Section 2, visible fugitive emissions beyond the property line	Board Order 11/20/2013
4/28/2012	Reg. 1.14, Section 2, visible fugitive emissions beyond the property line	Board Order 11/20/2013
4/16/2012	Reg. 1.14, Section 2, failure to control fugitive particulate emissions	Board Order 11/20/2013
6/3/2012	Reg. 1.07, Section 4, failure to report excess emissions Reg. 1.09, general prohibition of air pollution Reg. 7.08, Section 3, excess opacity or particulate matter	Board Order 11/20/2013
3/14/2012	Reg. 1.13, Section 2, failure to control objectionable odors	Board Order 4/17/2013
9/13/2012	Reg. 1.05, Section 5, failure to use good air pollution control practice	Board Order 11/20/2013
6/8/2012	Reg. 1.14, Section 2, failure to control fugitive particulate emissions	Board Order 11/20/2013
2/13/2012	Reg. 1.14, Section 2, visible fugitive emissions beyond the property line	Board Order 11/20/2013
2/8/2013	Reg. 1.14, Section 2, visible fugitive emissions beyond the property line	Board Order 11/20/2013
6/3/2013	Reg. 1.13, Section 2, failure to control objectionable odors	Board Order 11/20/2013

6. Calculation Methodology or Other Approved Method:

For the coal-fired and natural gas-fired boilers, the PTE evaluation utilized emission factors from AP-42, 1.1 for criteria pollutants and HAPs. The actual emissions shall be determined using CEMS records for NO_x, SO_2, and PM, or emission factors from the performance tests. AP-42 emission factors can be utilized if CEMS or performance test emission factors are not available. Control efficiencies for the control devices determined by the required performance tests shall be used for actual emission calculations.

Emission factors for the lime silos are from AP-42 Section 11.17, Lime Manufacturing, Table 4, for product loading, 0.61 lb/ton. The emissions will be reduced by the integrated bin vent filters.

Emission factors for flyash silos are derived from the emission factor for cement supplement uploading to elevated storage silo pneumatically (3-05-011-17) from AP-42, 11.12, Concrete Batching, Table 2, PM = 3.14 lbs/ton, PM10 = PM2.5 = 1.10 lbs/ton (uncontrolled). The emission factors for flyash are adjusted per moisture content, per AP-42, 13.2.4, equation (1). The adjusted emission factor for silos and transfer bins are PM = 0.3493 lbs/ton; PM10 = PM2.5 = 0.1224 lbs/ton

For coal processing equipment and limestone handling equipment, emission factors for material transfer points are determined using drop point equation from AP-42 Section 13.2.4, Equation (1). Correct wind speed and moisture content of the materials need to be used to determine the emission factors.

For the natural gas-fired heater, emissions can be calculated using manufacturer's guaranteed emission factors, or AP-42 emission factors if manufacturer's guaranteed emission factors are not available for the pollutants.

7. Insignificant Activities

Insignificant activities prior to NGCC construction project

Description	Quan.	PTE (tpy)	Basis for Exemption
Indirect heat exchangers <10 MMBtu/hr	16	0.74 SO_2	Regulation 1.02, Appendix A
Fuel or Lubricating oils storage tanks with vapor pressure <10mm Hg @ 20 deg C	12	0.0045 VOC	Regulation 1.02, Appendix A
Lab exhaust systems	3	9.5E-6 VOC	Regulation 1.02, Appendix A
Diesel or fuel storage tanks with annual turnover < 2X the capacity	6	0.00004 VOC	Regulation 1.02, Appendix A
Gasoline storage tank, 560 gallons (previous U9, see unit IA1)	1	0.19 VOC	Regulation 2.16, section 1.23
Cold solvent parts washers with secondary reservoir (previous U12, see unit IA2)	5	0.33 VOC	Regulation 1.02, Appendix A
Coal pile	1	2.56 PM_{10}	Regulation 2.16, section 1.23
Portable fuel storage tanks with capacity less than 500 gallons	2	0.00016 VOC	Regulation 1.02, Appendix A-3.23
Emergency generators (See unit IA-EG)	N/A	N/A	Regulation 2.16, section 1.23

Insignificant activities after NGCC construction project

Description	Quan.	PTE (tpy)	Basis for Exemption
Indirect heat exchangers <10 MMBtu/hr	16	0.74 SO_2	Regulation 1.02, Appendix A

Description	Quan.	PTE (tpy)	Basis for Exemption
Fuel or Lubricating oils storage tanks with vapor pressure <10mm Hg @ 20 deg C	N/A	0.0045 VOC	Regulation 1.02, Appendix A
Lab exhaust systems	1	9.5E-6 VOC	Regulation 1.02, Appendix A
Diesel or fuel storage tanks with annual turnover < 2X the capacity	5	0.00004 VOC	Regulation 1.02, Appendix A
Cold solvent parts washers with secondary reservoir (previous U12, see unit IA2)	3	0.33 VOC	Regulation 1.02, Appendix A
Portable fuel storage tanks with capacity less than 500 gallons	2	0.00016 VOC	Regulation 1.02, Appendix A
Mechanical draft cooling tower*	1	2.58 PM_{10}	Regulation 2.16, section 1.23
Lube oil demister vents*	3	0.4 VOC	Regulation 2.16, section 1.23
660 gallons diesel tanks for emergency generator U18*	1	0.027 VOC	Regulation 1.02, Appendix A
Emergency generators (See unit IA-EG)	N/A	N/A	Regulation 2.16, section 1.23
* These are new insignificant activities that are part of the NGCC construction project. They will be installed prior to November 1, 2015.			

1) Insignificant Activities identified in District Regulation 1.02 Appendix A may be subject to size or production rate disclosure requirements.

2) Insignificant Activities identified in District Regulation 1.02 Appendix A shall comply with generally applicable requirements.

3) Activities identified in Regulation 1.02, Appendix A, may not require a permit and may be insignificant with regard to application disclosure requirements but may still have generally applicable requirements that continue to apply to the source and must be included in the permit.

4) Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.

5) In lieu of recording annual throughputs and calculating actual annual emissions, the owner or operator may elect to report the pollutant Potential To Emit (PTE) quantity listed in the Insignificant Activities table, as the annual emission for each piece of equipment.

6) The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.

7) The owner or operator shall submit an updated list of Insignificant Activities whenever changes in equipment located at the facility occur that cause changes to the plant wide emissions.

8. Basis of Regulation Applicability for IA units

a. **Emission Unit IA1** – gasoline storage tank

i. **Equipment**

Emission Point	Description	Applicable Regulation	Basis for Applicability
IA1 – E17	One (1) Stage I gasoline refueling station, including one 560 gallon unleaded gasoline storage tank	6.40 7.15	Regulation 6.40 establishes requirements for the control of emissions from motor vehicle refueling at gasoline dispensing facilities. Regulation 7.15 establishes requirements for the control of emissions from gasoline delivery and storage tanks at existing service stations.

ii. **Standards/Operating Limits**

VOC

(a) Regulation 6.40 and 7.15 establishes work practice standards for the gasoline storage tank.

(b) The storage tanks under this unit meet the definition of insignificant activities per Regulation 2.16, section 1.23. However, Regulation 6.40 or 7.15 applies to gasoline storage vessels. These tanks shall meet the requirements under Regulation 6.40 or 7.15.

iii. **Monitoring and Record Keeping**

VOC

Regulation 6.40, section 3.1.1 establishes record keeping requirement for this unit.

b. **Emission Unit IA2** – parts washers with secondary reservoirs

i. **Equipment**

Emission Point	Description	Applicable Regulation	Basis for Applicability
IA2: E26a, b, c, d, e	Five (5) parts washers each equipped with a secondary reservoir	6.18	Regulation 6.18 applies to each cold cleaner that use VOCs to remove soluble impurities from metal surfaces.

ii. **Standards/Operating Limits**

VOC

1) Regulation 6.18 establishes standards for cold cleaner that use VOCs to remove soluble impurities from metal surfaces.

2) The parts washers under this unit meet the definition of insignificant activities per Regulation 2.16, section 1.23. However, Regulation 6.18 applies to each cold cleaner that use VOC to remove soluble impurities from metal surfaces. These parts washers shall meet the requirements under Regulation 6.18.

iii. **Monitoring and Record Keeping**

VOC

Regulation 6.18, section 4.4 establishes record keeping requirements for cold cleaners

c. **Emission Unit IA-EG** – Emergency generators

i. **Equipment**

Emission Point	Description	Applicable Regulation	Basis for Applicability
IA –EG	Emergency diesel generators that installed after July 11, 2005 and manufactured after April 1, 2006, with a maximum engine power less than or equal to 500 HP and located at a major or area source of HAP.	40 CFR 63, Subpart ZZZZ, 40 CFR 60, Subpart IIII	40CFR60 Subpart IIII applies to manufacturers, owner or operators of new stationary compression ignition internal combustion engines. 40CFR63 Subpart ZZZZ establishes national emission limitations and operating limitations for HAP emitted from stationary RICE located at major and area sources of HAP emissions.

ii. **Standards/Operating Limits**

1) **Unit Operation**

(a) 40 CFR 60.4202 and 4205 establish emission standards for the owner or operator or manufacturer of the emergency stationary CI ICE.

(b) 40 CFR 60.4211 establishes unit operation requirements for emergency stationary CI ICE.

2) **Fuel requirements**

40 CFR 60.4207 establishes requirement for nonroad diesel fuel.

iii. **Monitoring and Record Keeping**

1) **Unit Operation**

40 CFR 60.4209(a) and 4214(b) establish monitoring and record keeping requirements for emergency stationary CI ICE.

iv. **Reporting**

1) **Unit Operation**

40 CFR 60.4214 establish reporting requirements for emergency stationary CI ICE.